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THE IDENTITY OF TWO UNPLACED NEARCTIC TORYMIDAE (HYMENOPTERA)

E. E. GRISSELL

Systematic Entomology Laboratory, USDA, ARS, PSI, % U.S. National Museum, NHB 168, Washington, D.C. 20560.

Abstract.—Two unplaced Nearctic taxa of Torymidae are recognized. A neotype is designated for the species *Diomorus biorhizae* Ashmead (1887) based upon topotypic, reared specimens. The species is **transferred** to the genus *Torymus* and *Torymus axillaris* Ashmead (1894) is placed as a **junior subjective synonym**. *Lochites punctata* Ashmead (1887) is recognized as the male of *Platykula albihirta* (Ashmead 1887) and is **synonymized** under the latter name.

Key Words: Nomenclature, identification, Torymidae

In the 1979 "Catalog of Hymenoptera of America North of Mexico," two species of the family Torymidae were listed as unplaced taxa (Grissell 1979). One of the species, *Diomorus biorhizae* Ashmead, has been unrecognized since its description and its type has never been found. The other species, *Lochites punctata* Ashmead, is known only from its male type collected in Florida. During the course of preparing a generic reclassification of the Monodontomerinae-Toryminae complex I was able to establish the identity of both taxa. The purpose of this paper is to report the identity and correct nomenclature of the only two Nearctic species of the family Torymidae yet remaining as unplaced species.

Torymus biorhizae Ashmead, NEW COMBINATION

Diomorus biorhizae Ashmead 1887: 186. Neotype female, herein designated, Toronto, Ontario, Canada (USNM, examined).

Torymus axillaris Ashmead 1894: 333. Holotype female, Morgantown, West Virginia, USA (USNM, examined). NEW SYNONYMY.

Diomorus biorhizae was described by Ashmead (1887) from one female collected in Toronto, Canada, and "bred from gall *Biorhiza forticornis* Walsh sent me by Mr. Wm Brodie" [sic]. The species has been unrecognized since its description and the type has never been located. Burks (1967: 250) commented without explanation that the species probably belonged to *Torymus* and that the type was "apparently lost." Since 1967 the species has been listed as "unplaced" (Burks 1967, Grissell 1979), and its generic placement was uncertain.

Some years ago I located the type material of 2 presumed lost Brodie species in the Brodie Collection now housed in the United States National Collection (Grissell 1976). It occurred to me that the lost Ashmead type might also reside there since taxonomists sometimes deposit types of new species in the collection from which the specimens were borrowed. There are well over 15,000 specimens in the Brodie Collection, and unfortunately most are identified only by a

simple locality label and a collection number. The record book with corresponding numbers and data for Hymenoptera appears to be lost. Fortunately Brodie was meticulous about keeping the galls from which material emerged and then labelling the gall and its inhabitants with the *same number.* In this way I first located the gall specimens of *Biorhiza forticornis* [now = *Xanthoteras quercusforticorne*] (Hymenoptera: Cynipidae) from which *Diomorus biorhizae* was reared. These were labeled as follows: "Toronto, Ont., 34-91, Collection Wm Brodie." Using the number 34-91 to backtrack through the Brodie Collection, I was able to find 5 female and 4 male specimens associated with this number. All of these specimens bear the same labels as the host gall, but none is distinguished in any other manner. Therefore, it must be assumed that none of these specimens is the specimen seen by Ashmead and that the type, if it exists at all in the Brodie Collection, is unmarked.

There is no doubt that the specimens I found represent the species *Diomorus biorhizae* as described by Ashmead. Ashmead's description fits the specimens found in the Brodie Collection in every detail, including the posterior femora which "have a distinct tooth beneath near apex," the body with "some distinct, larger, coarser punctures" and a slight shading of the wing beneath the stigmal vein. The species is, in fact a member of the genus *Torymus* as defined by my earlier study of the nearly 100 known Nearctic species of the genus (Grissell 1976). It has a combination of characters found only in the 6 species that make up the *fullawayi* species-group.

Since the original description of *D. biorhizae* in 1887, Ashmead's holotype has not been found in over 100 years of work on the USNM collection. It also has not been found in the Brodie Collection. In Burks' opinion (1967) and in my opinion the type is lost. The extant material in the Brodie Collection is certainly topotypic and from the same host as the type. It matches the description in every way and is what Ashmead meant by the name *D. biorhizae.* It is a member of the genus *Torymus,* and because this is such a speciose genus (over 450 names world-wide), because the species are extremely difficult to delimit, and because the nomenclature is fraught with problems, I believe it is important to establish nomenclatural stability in the genus whenever this can be done. I therefore select and label as neotype a female from among the Brodie specimens to act as the namebearer for the species *biorhizae.*

In 1894 Ashmead described the species *Torymus axillaris* from a single female from Morgantown, West Virginia. It has not been collected since. It, too, is a member of the *fullawayi* group and falls within the range of variation found in the 9 specimens of *T. biorhizae.* In Grissell (1976) I keyed *T. axillaris* on the basis of the median carina being confined to the anterior one-third of the propodeum, but after examining *T. biorhizae* it is apparent that this carina varies from being weakly broken and almost absent to entire and strongly expressed within the single series. Based upon these data, I place *T. axillaris* as a subjective junior synonym of *T. biorhizae.*

In couplet 4 of my key to Nearctic females of the *fullawayi* species-group (Grissell 1976), I used the state of the propodeal carina as a key character to separate the eastern species *T. axillae* (now = *T. biorhizae*) from the western species *T. denticulatus* (Breland) and *T. fullawayi* (Huber). This character is not adequate to distinguish these species. Therefore couplets 4 and 5 of my key should be restructured as follows:

4. Upper surface of costal cell distally with at most 1 seta, lower surface essentially bare (eastern Nearctic) ..... *biorhizae* (Ashmead)
   Upper and lower surfaces of costal cell distally each with row of several setae (western Nearctic) 5
5. Propodeum without carina; hindfemur with

denticulate angle; basal vein asetose .....
..... *denticulatus* (Breland)
Propodeum with carina; hindfemur with distinct tooth; basal vein setose . . *fullawayi* (Huber)

Platykula albihirta **Ashmead**

Syntomaspis albihirta Ashmead 1887: 187. Holotype female, Jacksonville, Florida (USNM, examined).

Lochites punctata Ashmead 1887: 185. Holotype male, Jacksonville, Florida (USNM, examined). **New Synonymy.**

Ashmead (1887) described both *Lochites punctata* (male) and *Syntomaspis albihirta* (female) in the same paper from single specimens "taken at large" presumably from Florida (although this was not specifically stated). Labels on both specimens state Jacksonville, Florida as the type locality. The species *L. punctata* has long been unplaced because it is difficult to place male specimens of torymids to species. Also the head, one pair of wings, and some legs were broken off in past times and this has confounded its recognition. I have been working at the species level in this group for many years, and I was able to recognize an important autapomorphy in *L. punctata* known so far only in the monotypic genus *Platykula*. This is the enlarged, bristle-like hind-tibial spur. In no other genus does the spur exist in this form.

In 1927, Huber described the new genus *Platykula* for *Syntomaspis albihirta*. This is the only known species in the genus, and I have seen dozens of specimens, both males and females. When I examined the male type of *L. punctata* it was clear that it is conspecific with *P. albihirta*. As both species were described in the same paper either name could have priority, but I chose *P. albihirta* because this type is in better condition and is based upon the female. Thus, *L. punctata* becomes a subjective junior synonym of *Platykula albihirta*.

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